

IN THE CLAIMS:

Please amend claims 1, 2, 7-9, 12, 14, 15, 22, 25, 27-30, 32-35, 37-40, and 42-47, and add claim 48 as follows.

1. (Currently Amended) A method for deciding on handover in a cellular communication system, comprising:

collecting bit rate information related to a mobile station, when the mobile station is moving from a first cell to a second cell, wherein the mobile station initially has a connection to at least the first cell providing a certain bit rate to the mobile station, the collecting comprising measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell; and

using the bit rate information for deciding on when handover of the mobile station from the first cell to the second cell should be carried out by triggering the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition(s) condition or predetermined conditions,

wherein the bit rate information is a transfer rate with which data is transmitted within the coverage area or a bit rate defined for each sub-area.

2. (Currently Amended) The method of claim 1, wherein the bit rate information comprises at least one of the following: the bit rate provided to the mobile station by the

first cell, a bit rate provided to the mobile station by at least one other cell, or a bit rate requested by the mobile station.

3. (Original) The method of claim 1, wherein the decision on handover of the mobile station from the first cell to the second cell comprises deciding on whether handover should be carried out.

4. (Original) The method of claim 1, wherein the decision on handover of the mobile station from the first cell to the second cell comprises deciding on to which cell handover of the mobile station should be made.

5. (Canceled)

6. (Original) The method of claim 1, wherein information about traffic distribution in the system is utilized when deciding on handover of the mobile station.

7. (Currently Amended) The method of claim 1, wherein information about capacity ~~pro-vided~~provided by the system in different parts of the system is utilized when deciding on handover of the mobile station.

8. (Currently Amended) The method of claim 1, further comprising:

defining sub-areas within the coverage area of the system; and

defining preferable bit rates for each sub-area, ~~whereby~~ wherein so defined sub-area information is used when deciding on handover of the mobile station.

9. (Currently Amended) The method of claim 3, further comprising:

defining a handover profile which defines a preferable cell(s) cell or preferable cells for each bit rate, ~~whereby~~ wherein the handover profile is used when deciding on handover of the mobile station.

10. (Canceled)

11. (Previously Presented) The method of claim 1, wherein the predetermined condition requires that the bit rate is lower than a predetermined limit value, higher than a predetermined limit value or between two predetermined limit values.

12. (Currently Amended) The method of claim 11, wherein the limit ~~value(s)~~ value is, or limit values is-(are)-are based on the variation of the bit rate provided by the first cell and/or the bit rate provided by the second cell.

13. (Previously Presented) The method of claim 1, wherein the first cell and the second cell belong to different radio access systems or to the same radio access system.

14. (Currently Amended) A cellular communication system comprising:

cells; and

a mobile station having a connection to at least a first cell providing a certain bit rate to the mobile station; wherein the system is configured to when the mobile station is moving from the first cell to a second cell:

collect bit rate information related to the mobile station by measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell; and

use the bit rate information to decide on when mobile station handover from the first cell to the second cell should be carried out by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined ~~condition(s)~~condition or predetermined conditions,

wherein the bit rate information is a transfer rate with which data is transmitted within the coverage area or a bit rate defined for each sub-area.

15. (Currently Amended) The cellular communication system of claim 14, wherein the bit rate information comprises at least one of the following: the bit rate provided to the mobile station by the first cell, a bit rate provided to the mobile station by at least one second cell, or a bit rate requested by the mobile station.

16. (Original) The cellular communication system of claim 14, wherein the system is further configured, when deciding on handover of the mobile station from the first cell to the second cell, to decide on whether handover should be carried out.

17. (Original) The cellular communication system of claim 14, wherein the system is further configured, when deciding on handover of the mobile station from the first cell to the second cell, to decide on to which cell handover of the mobile station should be carried out.

18. (Canceled)

19. (Original) The cellular communication system of claim 14, wherein the system is further configured to utilize information about traffic distribution in the system when deciding on handover of the mobile station.

20. (Original) The cellular communication system of claim 14, wherein the system is further configured to utilize information about capacity provided by the system in different parts of the system when deciding on handover of the mobile station.

21. (Original) The cellular communication system of claim 14, wherein the system is further configured to define sub-areas within the coverage area of the system

and preferable bit rates for each sub-area, whereby the system is configured to use so defined sub-area information when deciding on handover of the mobile station.

22. (Currently Amended) The cellular communication system of claim 16, wherein the system comprises:

a handover profile comprising definitions of a preferable cell(s) cell or preferable cells for each bit rate whereby the system is further configured to use the handover profile when deciding on handover of the mobile station.

23. (Canceled)

24. (Previously Presented) The cellular communication system of claim 14, wherein the predetermined condition requires that the bit rate is lower than a predetermined limit value, higher than a predetermined limit value or between two predetermined limit values.

25. (Currently Amended) The cellular communication system of claim 24, wherein the limit ~~value(s) is (are)~~value is, or limit values are based on the variation of the bit rate provided by the first cell and/or the bit rate provided by the second cell.

26. (Previously Presented) The cellular communication system of claim 14, wherein the first cell and the second cell belong to different radio access systems or to the same radio access system.

27. (Currently Amended) A system element for controlling handovers in a cellular communication system comprising cells and a mobile station having a connection to at least a first cell providing a certain bit rate to the mobile station, wherein the system element is configured to when the mobile station is moving from the first cell to a second cell:

collect bit rate information related to the mobile station by measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell, ~~and~~ and

use the bit rate information for deciding on when handover of the mobile station from the first cell to the second cell should be carried out by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined ~~condition(s)~~ condition or predetermined conditions,

wherein the bit rate information is a transfer rate with which data is transmitted within the coverage area or a bit rate defined for each sub-area.

28. (Currently Amended) The ~~system element~~apparatus of claim 2748, wherein the bit rate information comprises at least one of the following: the bit rate provided to the mobile station by the first cell, a bit rate provided to the mobile station by at least one second cell, a bit rate requested by the mobile station.

29. (Currently Amended) The ~~system element~~apparatus of claim 2748, wherein the ~~system element~~apparatus is further configured, when deciding on handover of the mobile station from the first cell to the second cell, to decide on whether handover should be carried out.

30. (Currently Amended) The ~~system element~~apparatus of claim 2748, wherein the ~~system element~~apparatus is further configured, when deciding on handover of the mobile station from the first cell to the second cell, to decide on to which cell handover of the mobile station should be carried out.

31. (Canceled)

32. (Currently Amended) The ~~system element~~apparatus of claim 2748, wherein the ~~system element~~apparatus is further configured to utilize information about traffic distribution in the system when deciding on handover of the mobile station.

33. (Currently Amended) The ~~system element~~apparatus of claim 2748, wherein the ~~system element~~apparatus is further configured to utilize information about capacity provided by the system in different parts of the system when deciding on handover of the mobile station.

34. (Currently Amended) The ~~system element~~apparatus of claim 2748, wherein the ~~system element~~apparatus is further configured to define sub-areas within the coverage area of the system and preferable bit rates for each sub-area, whereby ~~wherein~~ the ~~system element~~apparatus is configured to use so defined sub-area information when deciding on handover of the mobile station.

35. (Currently Amended) The ~~system element~~apparatus of claim 29, wherein the ~~system apparatus~~ comprises a handover profile comprising definitions of a preferable cell(s) or preferable cells for each bit rate whereby the system element is further configured to use the handover profile when deciding on handover of the mobile station.

36. (Canceled)

37. (Currently Amended) The ~~system element~~apparatus of claim 2748, wherein the predetermined condition requires that the bit rate is lower than a predetermined limit

value, higher than a predetermined limit value or between two predetermined limit values.

38. (Currently Amended) The ~~system element~~apparatus of claim 37, wherein the limit value(s) ~~is (are)~~ is, or limit values are based on the variation of the bit rate provided by the first cell and/or the bit rate provided by the second cell.

39. (Currently Amended) The ~~system element~~apparatus of claim 2748, wherein the ~~system element~~apparatus is a radio network controller.

40. (Currently Amended) The ~~system element~~apparatus of claim 2748, wherein the ~~system element~~apparatus is the mobile station.

41. (Currently Amended) The ~~system element~~apparatus of claim 2748, wherein the first cell and the second cell belong to different radio access systems or to the same radio access system.

42. (Currently Amended) A mobile station for use in a cellular communication system comprising cells, the mobile station being configured to:

collect bit rate information related to the mobile station by measuring, when the mobile station has a connection to at least a first cell, a bit rate provided to the mobile

station by the first cell and/or a bit rate provided to the mobile station by a second cell;
and

use the bit rate information to decide on when handover of the mobile station from a first cell to the second cell should be carried out by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined ~~condition(s)~~ condition or predetermined conditions,

wherein the bit rate information is a transfer rate with which data is transmitted within the coverage area or a bit rate defined for each sub-area.

43. (Currently Amended) A method for deciding on handover in a cellular communication system, comprising:

collecting bit rate information related to a mobile station, the collecting comprising measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell; and

using the bit rate information for deciding on handover of the mobile station from the first cell to the second cell, the deciding comprising deciding to perform the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined ~~condition(s)~~ condition or predetermined conditions, wherein the mobile station initially has a connection to at least the first cell providing a certain bit rate to the mobile station,

wherein the bit rate information is a transfer rate with which data is transmitted within the coverage area or a bit rate defined for each sub-area.

44. (Currently Amended) A cellular communication system comprising:
cells; and
a mobile station; wherein the system is configured to
collect bit rate information related to the mobile station by measuring a bit rate
provided to the mobile station by a first cell and/or a bit rate provided to the mobile
station by a second cell; and
use the bit rate information for deciding on mobile station handover from the first
cell to the second cell such that the system is configured to decide to trigger the execution
of handover of the mobile station from the first cell to the second cell when the bit rate
provided by the first cell and/or the bit rate provided by the second cell fulfils a
~~predetermined condition(s)~~ condition or predetermined conditions,

wherein the bit rate information is a transfer rate with which data is transmitted within the coverage area or a bit rate defined for each sub-area.

45. (Currently Amended) A system element for controlling handovers in a
cellular communication system comprising cells and a mobile station, wherein the system
element is configured to:

collect bit rate information related to the mobile station by measuring a bit rate provided to the mobile station by a first cell ~~and/or~~ or, a bit rate provided to the mobile station by a second cell; ~~and~~, or a bit rate provided to the mobile station by a first and a bit rate provided to the mobile station by a second cell; and

use the bit rate information for deciding on handover of the mobile station from the first cell to the second cell such that the system element is configured to decide to trigger the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined ~~condition(s)~~ condition or predetermined conditions,

wherein the bit rate information is a transfer rate with which data is transmitted within the coverage area or a bit rate defined for each sub-area.

46. (Currently Amended) A mobile station for use in a cellular communication system comprising cells, the mobile station being configured to

collect bit rate information related to the mobile station by measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell; and

use the bit rate information for deciding on handover of the mobile station from the first cell to the second cell such that the mobile station is configured to decide to trigger the execution of handover of the mobile station from the first cell to the second

cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined ~~condition(s)~~condition or predetermined conditions,

wherein the bit rate information is a transfer rate with which data is transmitted within the coverage area or a bit rate defined for each sub-area.

47. (Currently Amended) A system for deciding on handover in a cellular communication system, comprising:

a ~~collecting unit~~collector configured to collect bit rate information related to a mobile station by measuring a bit rate provided to the mobile station by a first cell and/or a bit rate provided to the mobile station by a second cell; and

a ~~deciding unit~~decider configured to decide on handover of the mobile station from the first cell to the second cell using the bit rate information by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined ~~condition(s)~~condition or predetermined conditions,

wherein the bit rate information is a transfer rate with which data is transmitted within the coverage area or a bit rate defined for each sub-area.

48. (New) An apparatus, comprising:

a collector configured to collect bit rate information related to a mobile station in a cellular communication system when the mobile station is having a connection to at least

a first cell providing a certain bit rate to the mobile station and when the mobile station is moving from the first cell to a second cell, by measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell, and

a decider configured to use the bit rate information for deciding on when handover of the mobile station from the first cell to the second cell should be carried out by triggering the execution of handover of the mobile station from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined condition or predetermined conditions,

wherein the bit rate information is a transfer rate with which data is transmitted within the coverage area or a bit rate defined for each sub-area.